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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,558	02/07/2001	Pang-Chia Lu	10251	4395

7590 05/23/2002
ExxonMobil Chemical Company
P.O. Box 2149
Baytown, TX 77522

EXAMINER

NGUYEN, KIMBERLY T

ART UNIT	PAPER NUMBER
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1774

5

DATE MAILED: 05/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/778,558

Applicant(s)

LU ET AL.

Examiner

Kimberly T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3, 4, 6, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3 and 6 are rejected under 35 U.S.C. 112, 2nd paragraph, as being incomplete for omitting essential structural components of elements, such omission amounting to a gap between the necessary structural connections. See MPEP 2173.05(k) and 2172.01.

In claim 3, it is not clear which side of the film is in contact with the paper or plastic substrate. For purposes of examination, the extruded film layer (a) will be understood to in contact with the substrate so that the arrangement is: substrate/extruded film layer/coating layer.

In claim 6, it is not clear where the coating layer (b) is located in relation to the extruded layer (a) and the three-layer film structure. For purposes of examination, the coating layer (b) will be understood be coated on top of the extruded film layer (a) so that the arrangement of the film is: coating layer/extruded layer/core layer/skin layer.

In claims 1, 4, 6, and 9, it is not clear how the film can be “porous in a direction perpendicular to the plane of the film” or “porous from one surface to the other in a direction perpendicular to the plane of the film.”

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newberry et al., U.S. Pat. No. 6,087,079 in further in view of Schleinz et al., U.S. Pat. No. 5,458,590.

Newberry shows a photographic imaging element comprising a paper substrate and at least two extruded biaxially oriented high density polyethylene sheets which comprise a core layer, surface layers, and skin layers (core layer, extruded layer, and skin layer) (claim 6 and Abstract). Newberry further shows an image layer (coating layer) comprising gelatin and polyvinyl alcohol which is coated on the imaging element (column 13, lines 5-26). Newberry shows that calcium carbonate particles, silica, and alumina are added to the layers of the imaging element (column 5, line 30 to column 6, line 20). Newberry shows that the sheets are treated with plasma to improve printability or adhesion (column 6, lines 53-63). Newberry shows voids (pores) in the HDPE sheets wherein the voids are oriented so that there is an alignment with the machine and transverse directions of the sheet (column 4, lines 20-37). Newberry further shows a nonvoided skin layer (nonporous) (column 5, lines 66-67). Newberry shows that the ink can be applied to the imaging element via ink jet printing (column 13, lines 5-25).

so that they are in the HDPE layer which is to be the receiving coating layer

Though Newberry shows plasma treatment, Newberry does not show the temperature at which it is treated as in instant claim 5. Newberry does not show the void content of at least 20% as in instant claim 1. However, such temperatures and percentage of void content are

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properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of the temperature and void content, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. temperature and void content) fails to render claims patentable in the absence of unexpected results. In addition, the void content affect is a porous condition and therefore, is an ink receiving layer.

Newberry does not show HDPE fibers in the imaging element as in instant claims 1 and 6. Schleinz shows an ink-printed fibrous laminate web comprising fibers of HDPE which are extruded into films (column 7, line 18 to column 8, line 9). Schleinz further shows that the laminate web is printed with water-based ink jet printing ink (column 4, lines 58-65). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to HDPE fibers in the layers of Newberry because it is known, as shown by Schleinz, that HDPE fibers are useful for its mechanical and chemical strength and good printing characteristics for use with water-based ink inkjet printing (column 4, lines 58-65).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly T. Nguyen whose telephone number is (703) 308-8176. The examiner can normally be reached on Monday to Friday, except on every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (703) 308-0449. The fax phone numbers for the

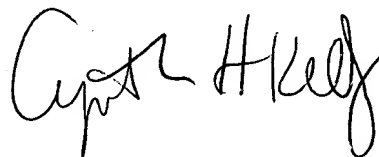
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organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Kimberly T. Nguyen
Examiner
May 20, 2002

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

A handwritten signature in black ink, appearing to read "Cynthia H. Kelly", written in a cursive style.